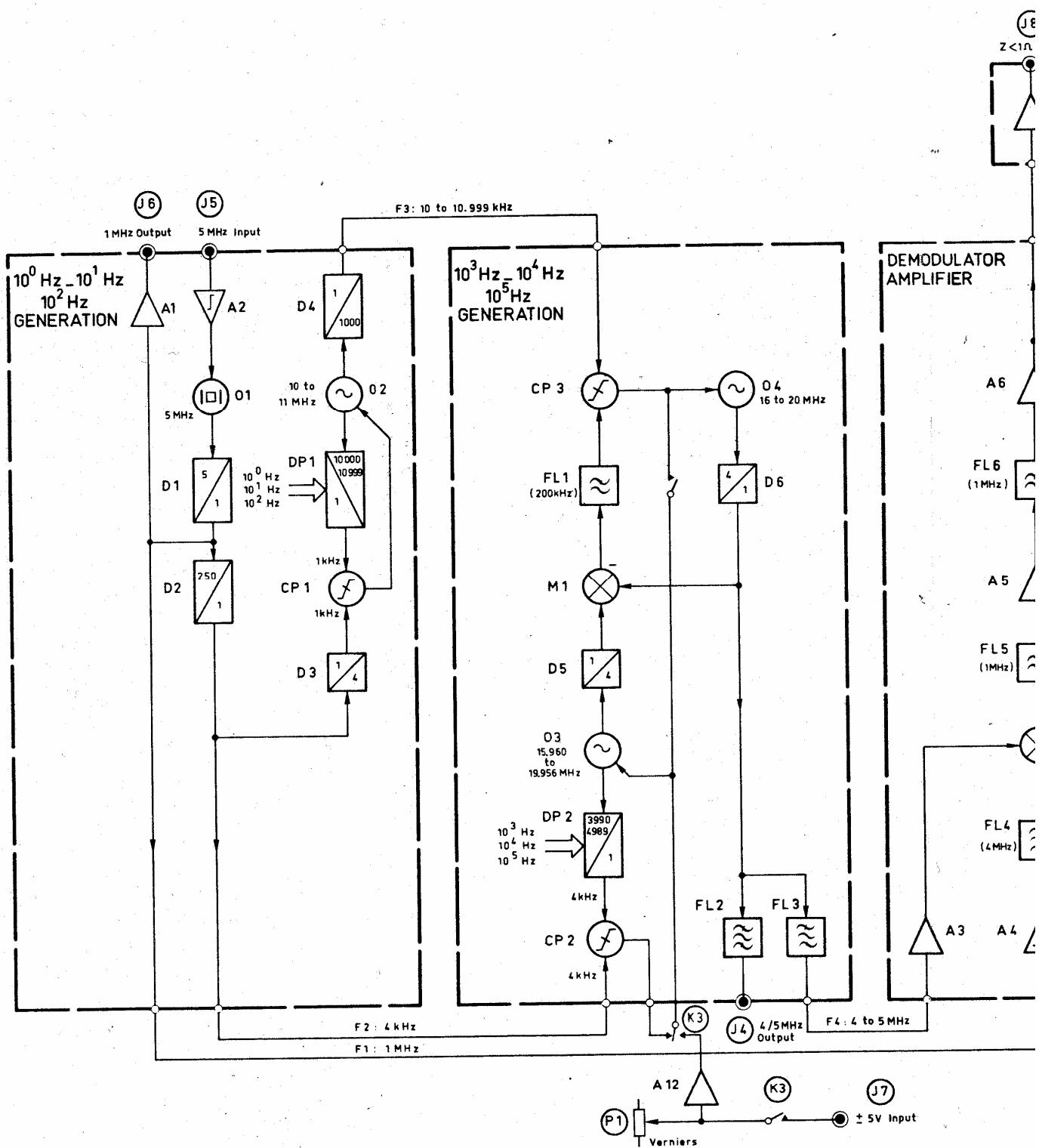
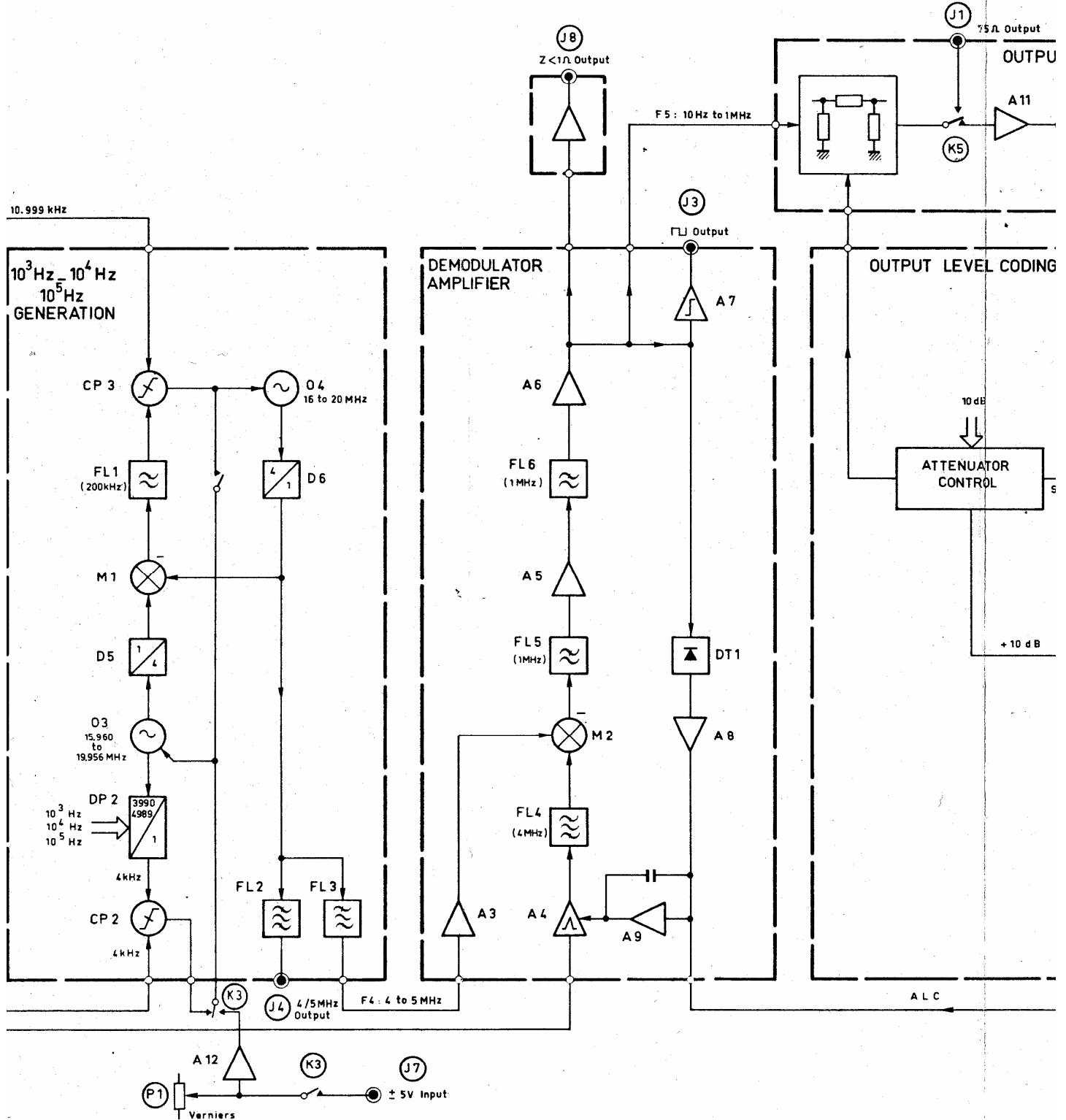


PLATE IV-3
2230A - INTERNAL DESCRIPTION





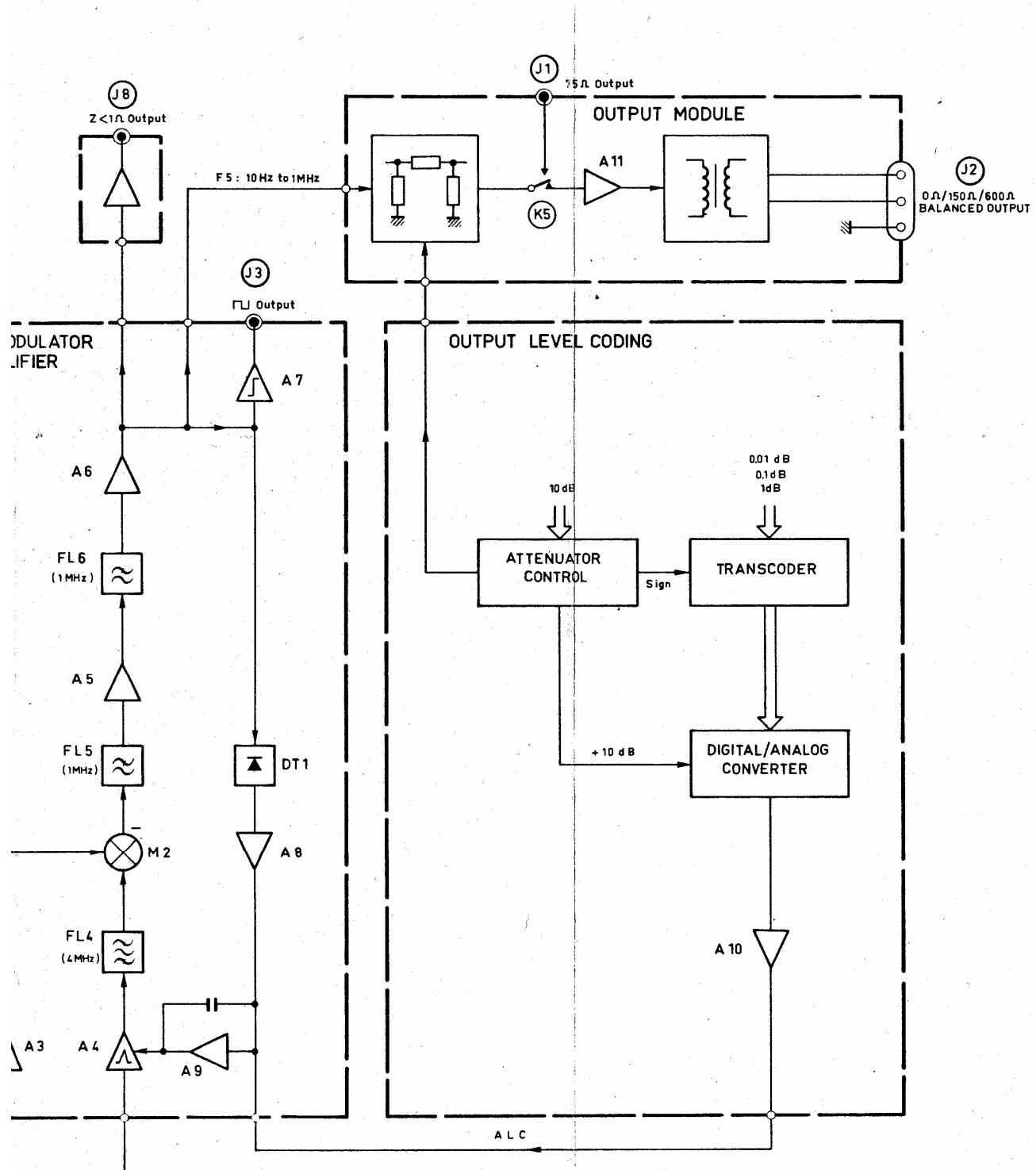


PLATE V-1
2230A - BLOCK DIAGRAM

Improving communications

You have just bought an **ADRET** instrument.

We would like to thank you for trusting our know-how, and we hope your choice will be satisfying.

However, despite how carefully it has been designed and manufactured, you may encounter some troubles.

To help us overcome these failures, and to solve them, we need to know the nature of your applications, the conditions of use and the difficulties encountered.

You can help us by filling the reply card below.

On the other hand, we periodically publish a news **LETTER** dealing with our new products, our techniques, our organisation ...

By returning the coupon below, you will automatically be added to our new **LETTER** mailing list, and benefit from this useful mean of communication with you and between yourselves, users of **ADRET** equipments.

To tell us about any unusual or original applications you may have found particularly useful - we will publish them, with your permission - so that other users can enjoy the same benefits.



Instrument :

Model : Serial N° : Date of purchase :

Main applications and conditions of use :

.....

.....

.....

.....

.....

.....

Weak points - Difficulties encountered :

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Would you like to know more about the use of this instrument ?

.....

.....

.....

.....

.....

.....

.....

POSTCARD

Company:

Department:

Service:

Address:

.....

City:

Country:

Name/first name:

N° tel.:

N° telex:

ADRET Electronique
Service Commercial
BP 33

78192 TRAPPES CEDEX
FRANCE

ADRET ELECTRONIQUE®

SCHEMAS ET NOMENCLATURES

DIAGRAMS AND NOMENCLATURES

T A B L E D E S M A T I E R E S

- * SIGNIFICATION des codes sous/ensembles et Réf. Adret
- * ARTICULATION et SYNOPTIQUE
- * SCHEMAS et NOMENCLATURES
- * LISTE des COMPOSANTS
- * LISTE des SOUS-ENSEMBLES MAINTENANCE
 - Outilage
 - Recharge 100%
 - Recharge 70%
 - Composants maintenance
- * Garantie et Assistance

C O N T E N T

- * MEANING of the part number and Adret codes
- * ARTICULATION and BLOCK DIAGRAM
- * DIAGRAMS and NOMENCLATURES
- * COMPONENTS LIST
- * RECOMMENDED SUB-ASSEMBLIES or PC board
 - Extended boards
 - Set of 100% of repairs
 - Set of 70% or repairs
 - Set of components
- * Warranty and Assistance

SIGNIFICATION des codes sous/ensembles et Ref. Adret

Dans le chapitre **SCHEMAS et NOMENCLATURES**, les deux premiers chiffres

- du code s/ensemble (page 1)
- et de la Ref. Adret (page 2 et suivantes),

correspondent à une famille de produits.

Le détail de ces familles est donné dans le tableau ci-après.

ExemplesPage 1 : Articulation

PAGE	CODE S/ENSEMBLE	DESCRIPTION	*	PLAN
	PART NUMBER		PART DESCRIPTION	DRAWING
- 2	0471004009-*	16 OPTION AMPLI STD	* 16 OPTION AMPLI 650MHZ .	C94.....A98*97
- 5	0271520000-*	13 ATTENUATEUR	* 13 ATTENUATOR ASSEMBLY .	A92.....C98...
- 6	0273210000-*	03 CARTE BF AMPLI STD ..	* 03 BF BOARD AMPLI 650MHZ	A93.....
- 7	0274740000-*	02 CDE AMPLI STD	* 02 CONTROL AMPLI 650MHZ.	C93.....A97

Soit le code s/ensemble **0271520000**.

Le tableau ci-après indique qu'il s'agit d'un sous-ensemble (02).

Page 2 et suivantes : Nomenclature

REPÈRE INDEXE	REF. ADRET PART NUMBER	DESCRIPTION	PART DESCRIPTION	FOURNISSEUR/PLAN SUPPLIER/DRAWING
	001 0271520000	13 ATTENUATEUR	* 13 ATTENUATOR ASSEMBLY .	A92.....C98...
	001 0273210000	03 CARTE BF AMPLI STD ..	* 03 BF BOARD AMPLI 650MHZ	A93.....
	001 0274740000	02 CDE AMPLI STD	* 02 CONTROL AMPLI 650MHZ.	C93.....A97
B -001	1400217300	KMV10 EMBASE' MALE' FIXAT. AVANT	* KMV10 00 FRONT ANCHOR MALE ...	SEALECTRO
B -002	1420020700	TRF254 M 20 MALE A SOUDER	* TRF254 M 20 MALE TO SOLDER	TRELEC
C -001	3100620000	FILTRE TRAVERSEE ZFN 5203-00A	* PINCH FILTER ZFN 5203-00A	TDK
C -002	3150042200	0,22MMF 5 50V20% 3439050 E224M	* 0,22MMF 5 50V20% 3439050 E224M	AVX
C -003	3120098200	CHIPS 0,22MMF 20% 25V Z5U-1808	* CHIPS 0,22MMF 20% 25V Z5U-1808	RTC
C -004	3800042200	8,2FF 2,5"E" 2222 678 09 B28	* 8,2FF 2,5"E" 2222 678 09 B28	COGECO
				RTC

Soit la Ref. Adret **3150042200**.

Le tableau ci-après indique qu'il s'agit d'un condensateur Céramique (31) et rappelle son repère (C).

PRODUITS **Repère** **Famille****COMPOSANTS D'INTERCONNEXIONS**

	01	Option Client
	02	Sous-Ensemble
	04	Option Usine
	10	Transformateurs
	11	Fils et câbles
	12	Circuits imprimés
	13	Accessoires de câblage
B	14	Connecteurs
K	15	Commutateurs
K	16	Relais

PRODUITS

Repère Famille

RESISTANCES

	17	Protection, signalisation, lampes, fusibles...
	18	Galvanomètre, compteur horaire...
	19	Accessoires pour composants d'interconnexions

CONDENSATEURS

R	20	Thermistances CTN - CTP
P	21	Potentiomètres
R	22,23	Résistances usage courant
R	24	Résistances usage courant
R	25,26	Résistances à couche métallique
R	27	Résistances très haute précision
R	28	Résistances bobinées
R	29	Résistances miniatures

SEMI-CONDUCTEURS

D	40	Cellule photo émissive
SN	41	Circuits intégrés logiques
SN	42	Circuits intégrés analogiques
Q	43	Transistors
Q	44	Transistors à effet de champ
D	45	Diodes et varicaps
D	46	Diodes Zener
	48	Circuits hybrides
	49	Accessoires

AUTRES COMPOSANTS ELECTRONIQUES

Y	51	Quartz et accessoires
F	52	Filtre
L	53	Inductances surmoulées
	54	Composants pour bobinages
	55	Tubes ferrites
	56	Composants pour bobinages
	57	Accumulateur
	59	Transducteur

PIECES DETACHEES MECANIQUES

61	Vis
62	Ecrous
63	Rondelles
64	Rivets, plots, circlips ...
65	Boutons, cadrans ...
67	Entretroises

MECANIQUE

71. à 91

MEANING of the "part number" and "Ref. Adret" codesIn the **DIAGRAMS and NOMENCLATURES** chapter, the two first numbers of

- the part number (page 1)
- and the Ref. Adret (page 2 and following),

correspond to a product-family.

The details of those families are given in the following list.

ExamplesPage 1 : Articulation

PAGE	CODE S/ENSEMBLE PART NUMBER	DESCRIPTION	*	PART DESCRIPTION	PLAN DRAWING
- 2	0471004009-*	16 OPTION AMPLI STD	*	* 16 OPTION AMPLI 650MHZ .	C94.....A98*97
- 5	0271520000-*	13 ATTENUATEUR	*	* 13 ATTENUATOR ASSEMBLY .	A92.....C98...
- 6	0273210000-*	03 CARTE BF AMPLI STD ..	*	* 03 BF BOARD AMPLI 650MHZ	A93.....
- 7	0274740000-*	02 CDE AMPLI STD	*	* 02 CONTROL AMPLI 650MHZ.	C93.....A97

Take the part number **0271520000**.

The following list indicates that it concerns a sub-assembly (02).

Page 2 and following : Nomenclature

REFERE INDEXE	REF. ADRET PART NUMBER	DESCRIPTION	PART DESCRIPTION	FOURNISSEUR/PLAN SUPPLIER/DRAWING
	001 0271520000	13 ATTENUATEUR	* 13 ATTENUATOR ASSEMBLY .	A92.....C98...
	001 0273210000	03 CARTE BF AMPLI STD ..	* 03 BF BOARD AMPLI 650MHZ	A93.....
	001 0274740000	02 CDE AMPLI STD	* 02 CONTROL AMPLI 650MHZ.	C93.....A97
B -001	1400217300	KMV10 EMBASE'MALE'FIXAT. AVANT	* KMV10 00 FRONT ANCHOR MALE ...	SEALECTRO
B -002	1420020700	TRF254 M 20 MALE A SOUDER	* TRF254 M 20 MALE TO SOLDER	TRELEC
B	3100620000	FILTRE TRAVERSEE ZFN 5203-00A	* PINCH FILTER ZFN 5203-00A	TDK
C -001	3150042200	0,22MMF 5 50V20% 3439050 E224M	* 0,22MMF 5 50V20% 3439050 E224M AVX	
C -002	3800042200	CHIPS 0,22MMF 20% 25V Z5U-1808	* CHIPS 0,22MMF 20% 25V Z5U-1808 RTC	
C -003	312009B200	8,2PF 2,5"E" 2222 678 09 828	* 8,2PF 2,5"E" 2222 678 09 828 COGECO	
C -004	3800042200	CHIPS 0,22MMF 20% 25V Z5U-1808	* CHIPS 0,22MMF 20% 25V Z5U-1808 RTC	

Take the Ref. Adret **3150042200**.

The following list indicates that it concerns a ceramic capacitor (31) and recalls its reference (C).

PRODUCTS Reference Family

INTERCONNECTION COMPONENTS	01	Customer Option
	02	Sub-Assembly
	04	Factory Option
	10	Transformers
	11	Cables assembly
	12	Printed circuits
	13	Accessories
B	14	Connectors
K	15	Switches
K	16	Relays

PRODUCTS	Reference	Family
RESISTORS	17	Protection, signalling, lights, fuses ...
	18	Galvanometer, time counter ...
	19	Accessories for interconnection components
	R 20	Thermistors CTN - CTP
	P 21	Potentiometers
	R 22,23	Resistors for running use
	R 24	Resistors for running use
	R 25,26	Resistors with metallic sheet
	R 27	Resistors very high accuracy
	R 28	Winded resistors
	R 29	Miniature resistors
CAPACITORS	C 31	Ceramic capacitors
	C 32	Capacitors film plastic
	C 33	Capacitors mica
	C 35	Electrochemical capacitors
	C 36	Variable capacitors
	C 37	Tantalum capacitors
	C 38	CHIPS capacitors, ceramic pastille
	C 39	Accessories
	D 40	Photo emitting cell
	SN 41	Logic printed circuits
SEMI-CONDUCTORS	SN 42	Analog printed circuits
	Q 43	Transistors
	Q 44	Field effect transistors
	D 45	Diodes and varicaps
	D 46	Zener diodes
	48	Hybrid circuits
	49	Accessories
	Y 51	Crystals and accessories
	F 52	Filter
	L 53	Surmoulded inductors
OTHERS ELECTRONIC COMPONENTS	54	Components for winding
	55	Ferrite tubes
	56	Components for winding
	57	Battery
	59	Transducer
	61	Screws
	62	Nuts
	63	Washers
	64	Clinches, contacts, circlips ...
	65	Knobs, faces ...
MECANIC REPLACEMENT PARTS	67	Spacer round
	71	to 91
MECHANICAL		

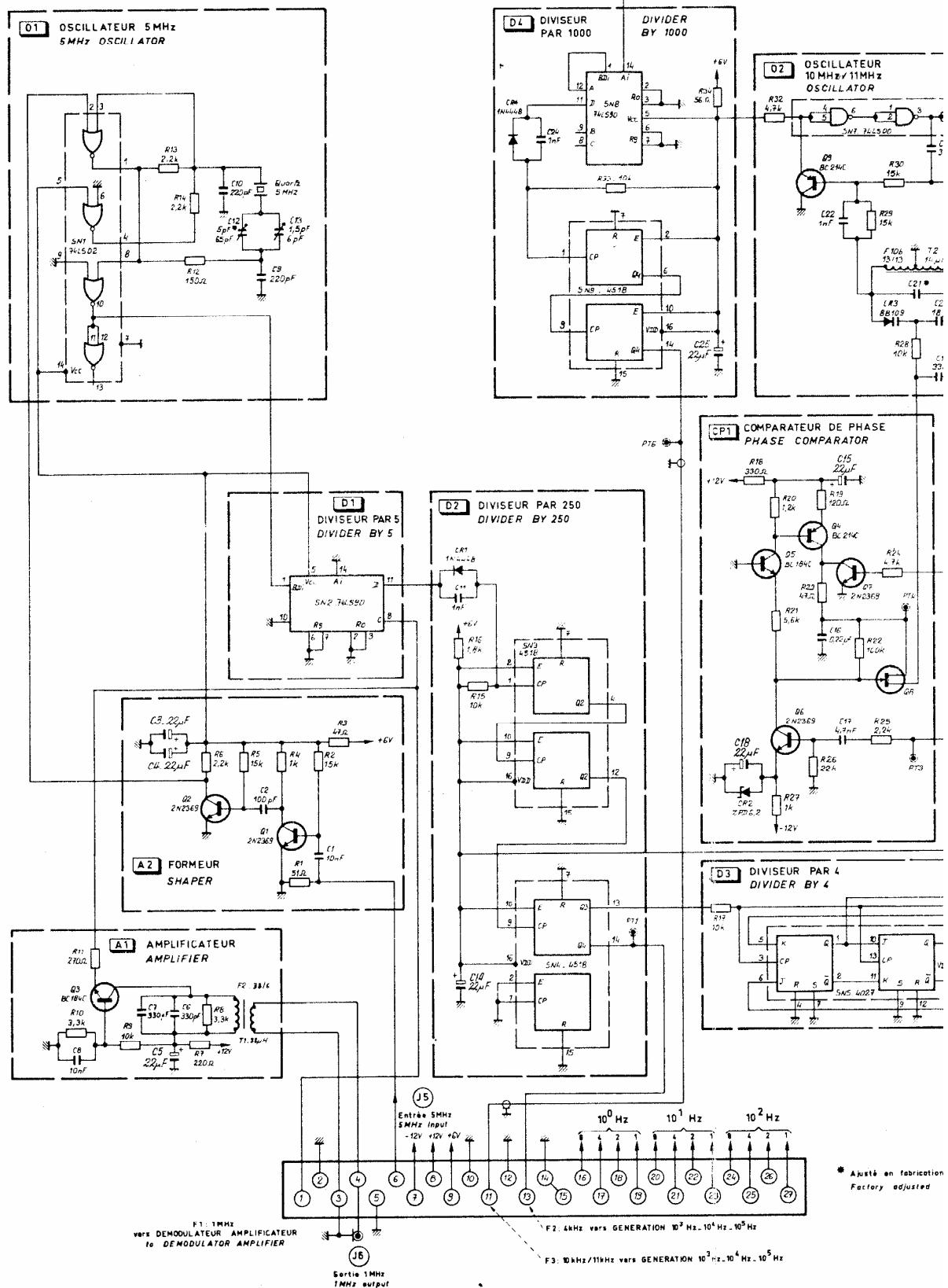
ARTICULATION & OPTIONS 2230A * ARTICULATION & OPTIONS 2230A 09.86

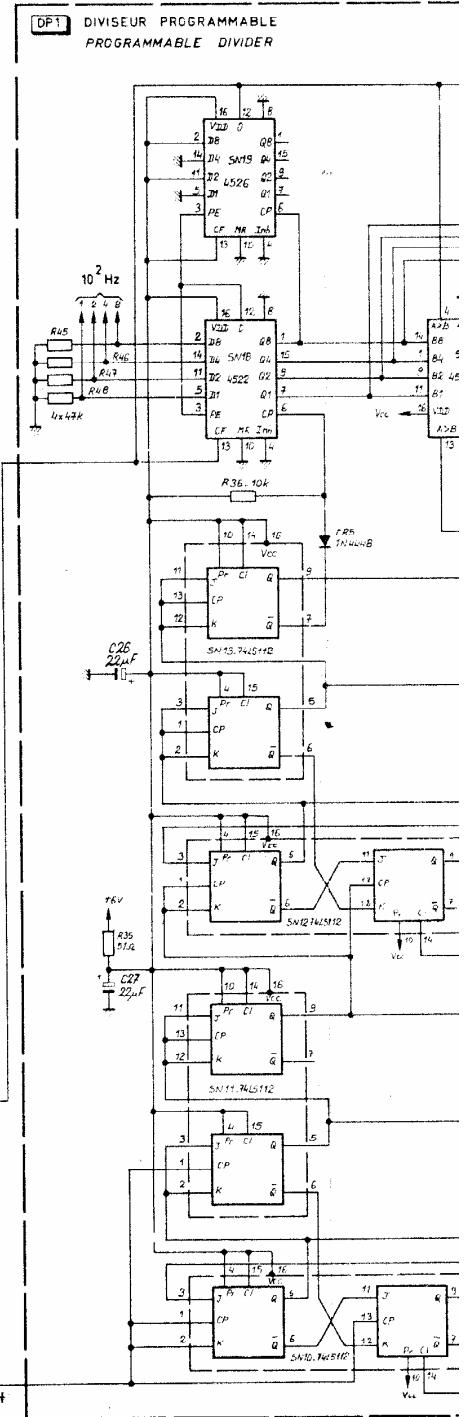
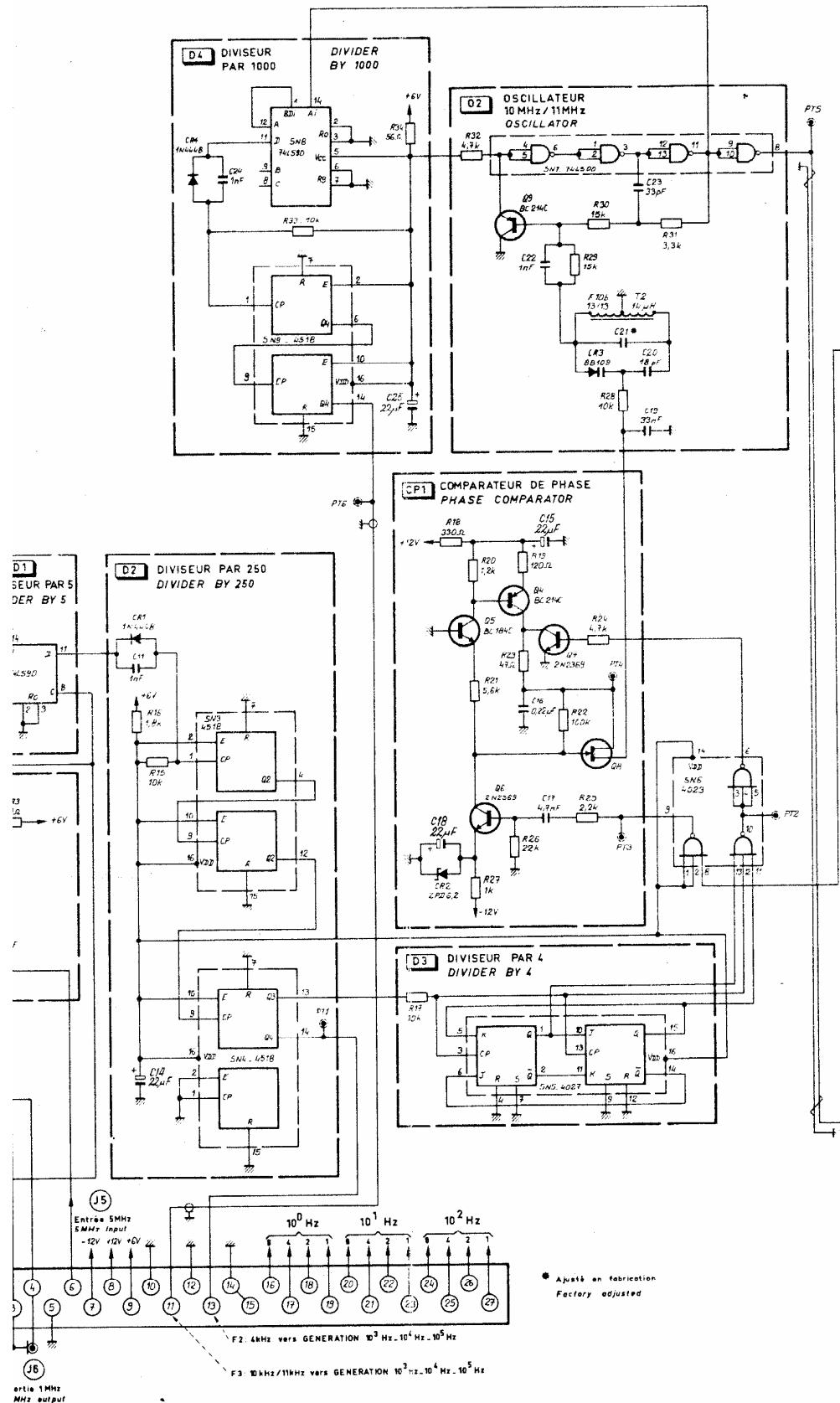
PAGE	CODE S/ENSEMBLE	DESCRIPTION	PLAN
	PART NUMBER		DRAWING
- 2	0422301002-*	00 AVANT HABILLAGE Z=0 . 2230A * 00 AVANT HABILLAGE Z=0 . 2230A	
- 3	0269050000-*	14 1ER GENERATION 2230A * 14 FIRST GENERATION 2230A M932502.A976905	
- 5	0269060000-*	17 2EME GENERATION 2230A * 17 SECOND GENERATION ... 2230A M932344.E976906	
- 8	0269070000-*	13 CARTE AMPLIFICATEUR . 2230A * 13 AMPLIFIER BOARD 2230A G932353.A976907	
- 11	0269080000-*	06 CARTE COMMANDE NIVEAU 2230A * 06 LEVEL CONTROL BOARD . 2230A G932349.A976908	
- 13	0269100000-*	11 BAQUET DE SORTIE 2230A * 11 OUTPUT MODULE 2230A J920871.C976910	
- 14	0269110000-*	03 ATTENUATEUR 2230A * 03 ATTENUATOR 2230A C932524.....	
- 15	0269120000-*	11 AMPLI SYMETRIQUE 2230A * 11 SYMMETRICAL AMPLI ... 2230A H932351 1&2/2..	
- 16	0270080300-*	02 CHASSIS EQUIPE Z0 ... 2230A * 02 FITTED CHASSIS Z0 ... 2230A J910214.....	
- 17	0269150100-*	07 PORTEUR EQUIPE 2230A * 07 FITTED MOTHER BD 2230A B920953.A976915	
- 18	0270110000-*	08 PLAQUE AVANT MONTEE . 2230A * 08 ASSEM. FRONT PLATE .. 2230A L920934.....	
- 19	0269090000-*	03 COMMUTATEUR TTL 2230A * 03 TTL SWITCH 2230A D932366.....	
- 20	0270030100-*	09 COMMUTATEUR MODE 2230A * 09 MODE SWITCH 2230A J932523.B977003	
- 21	0270100000-*	04 BLOC ROUES CODEES ... 2230A * 04 SPIN WHEELS BLOCK ... 2230A D920933.....	
- 22	0270940000-*	01 AMPLI Z=0 2230A * 01 AMPLI Z=0 2230A E932549.A977094	
- 23	0422308301-*	08 OPTION 2 IEEE 2230A * 08 OPTION 2 IEEE 2230A F932565	
- 24	0269970000-*	06 CARTE REGISTRE IEEE . 2230A * 06 IEEE REGISTER BOARD . 2230A E932563.B976997	
- 25	0274880000-*	02 CARTE ISOLATION IEEE 2230A * 02 IEEE INSULATING BOARD 2230A D932961.C977488	
- 27	0422308302-*	03 OPTION 1 BCD 2230A * 03 OPTION 1 BCD 2230A A932555(2)....	
- 28	0269130000-*	01CARTE OPTION BCD 2230A * 01 BCD OPTION BOARD 2230A 932547. 976913	

REPERE INDEXE	REF. ADRET PART NUMBER	DESCRIPTION	PART DESCRIPTION	FOURNISSEUR/PLAN SUPPLIER/DRAWING	QTE QTY
001	0422301002 00	AVANT HABILLAGE Z=0 . 2230A	00 AVANT HABILLAGE Z=0 . 2230A		1
001	0422308301 08	OPTION 2 IEEE	08 OPTION 2 IEEE	2230A F932565	1
001	0422308302 03	OPTION 1 BCD	03 OPTION 1 BCD	2230A A932555(2).....	1
Z0	0122309001	KIT ASSEMBLAGE RACK 3U 1X2230A	KIT ASSEMBLAGE RACK 3U 1X2230A	A910165	1
Z0	0122309002	KIT ASSEMBLAGE RACK 3U 2X2230A	KIT ASSEMBLAGE RACK 3U 2X2230A	A910165	1
Z0	0122309003 00	PROLONGATEUR 27 1 GEN 2230A	00 PROLONGATEUR 27 1 GEN 2230A	2230A 932610.....	1
Z0	0122309004 00	PROLONGATEUR 27 2 GEN 2230A	00 PROLONGATEUR 27 2 GEN 2230A	2230A 932611.....	1
Z0	0122309005 00	PROLONG. OPT. IEEE+BCD 2230A	00 PROLONG. OPT. IEEE+BCD 2230A	2230A A93.....	1
Z0	0122309006 00	PROLONG. CDE NIVEAU 2230A	00 PROLONG. CDE NIVEAU 2230A	2230A A93.....	1
Z0	0122309007 00	PROLONGATEUR AMPLI .. 2230A	00 PROLONGATEUR AMPLI .. 2230A	2230A A93.....	1
Z0	0422308304 01	OPTION 20/21MHZ	01 OPTION 20/21MHZ	2230A A92 1&2/2	1

09.86 ****0422301002 00 AVANT HABILLAGE Z=0 . 2230A * 00 AVANT HABILLAGE Z=0 . 2230A **** PAGE 2

REPERE INDEXE	REF. ADRET PART NUMBER	DESCRIPTION	PART DESCRIPTION	FOURNISSEUR/PLAN SUPPLIER/DRAWING	QTE QTY
001	0269050000 14	1ER GENERATION 2230A	14 FIRST GENERATION 2230A	M932502.A976905	1
001	0269060000 17	2EME GENERATION 2230A	17 SECOND GENERATION ... 2230A	M932344.E976906	1
001	0269070000 13	CARTE AMPLIFICATEUR 2230A	13 AMPLIFIER BOARD ... 2230A	G932353.A976907	1
001	0269080000 06	CARTE COMMANDE NIVEAU 2230A	06 LEVEL CONTROL BOARD : 2230A	G932349.A976908	1
001	0269100000 11	BAQUET DE SORTIE 2230A	11 OUTPUT MODULE ... 2230A	J920871.C976910	1
001	0270080300 02	CHASSIS EQUIPE Z0 ... 2230A	02 FITTED CHASSIS Z0 ... 2230A	J910214.....	1
Z0	0422301300 02	LOT HABILLAGE FANTOME	02 LOT HABILLAGE FANTOME		1





- Adjust on fabrication
Factory adjusted

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	ACORT	H v

